Poor people live without fundamental freedoms of action and choice that the better-off take for granted. Within the IPR system of the WTO, this holds true in the case of developing countries’ farmers (poor people), and the developed countries’ breeders and commercial seed companies (better off).

INTRODUCTION
In developing countries, agriculture remains the main source of livelihood for between 50 percent and 90 percent of the population. Of this percentage, small farmers make up the majority, i.e., 70 percent to 95 percent. These farmers have been practicing traditional farming methods for millennia. These methods tremendously contribute in harnessing ecological potential of land and conserving and developing genetic resources. Importantly, such traditional knowledge not only help them sustain their life but also largely contribute to the development of genetic resources and farming systems. However, in recent years, due to forces of globalisation and the World Trade Organisation (WTO), the livelihood patterns of these farmers, their traditional knowledge, and genetic resources are becoming subject to serious threats. The Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the WTO has extended intellectual property rights (IPRs) in agriculture rendering the developing countries’ farmers more vulnerable, marginalised and disadvantaged. By irrationally strengthening the position of the breeders and commercial seed companies of developed countries in the world agricultural market, the provisions of TRIPS Article 27.3 (b) have severely restricted the rights of farmers in developing countries.

IPRs AND FARMERS’ RIGHTS
Patents and plant variety protection (PVP) are two different forms of IPRs. Both provide exclusive monopoly rights over a creation for commercial purposes over a period of time. A patent is a right granted to an inventor to prevent all others from making, using, and/or selling the patented invention for 20 years. The criteria for a patent are novelty, inventiveness (non-obviousness), and utility. The provision for patenting on life form is the most contentious issue within TRIPS. PVP provides patent like rights to plant breeders. What gets protected in this case is the genetic makeup of a specific plant variety. The criteria for protection are: novelty, distinctness, uniformity, and stability (DUSN). PVP laws can provide exemptions for breeders, allowing them to use protected varieties for further breeding, and for farmers, allowing them to save seeds from their harvest. For the seed industry, PVP is regarded as the weaker sister of patenting mainly because of these exemptions. Yet, often touted as a ‘soft’ kind of patent regime, PVP laws are just as threatening as industrial patents on biodiversity, and also represent an attack on the rights of farmers. (emphasis added)

There are four different but interrelated rights of farmers, which are mostly affected by these IPRs.

Right to Seed
Most farmers in developing countries depend on informal seed supply system, i.e., they save, exchange,
reuse and sell seeds informally in close connection with their neighbours and local people. Under the IPR regime, farmers will be denied the right to save patented or protected seeds for subsequent planting and will have to buy seeds for each season. They will lose control over plant varieties to corporations that control the seed market. Seed companies have already sued hundreds of Canadian and US farmers for using farm-saved patented seeds. Farmers in developing countries will not be spared. Already, six big companies (Monsanto, DuPont, Syngenta, Dow, Aventis and Grupo Pulsor) own 74 percent of the patents on major food crops, including rice, wheat, maize, soya and sorghum.6

Right to Traditional Knowledge
Respecting traditional knowledge does not mean keeping it from the world. It means using it in ways that benefit the communities from which it is drawn.7 However, there seems no respect for traditional knowledge within the IPR system. While developing countries are home to about 90 percent of the world’s genetic resources and traditional knowledge, more than 90 percent of world’s research and development activity takes place in industrial countries. Whereas a gene-rich, technology-poor South and a technology rich, gene-deficient North show the potential for mutually beneficial bargains between the two groups, a number of prominent companies of the North are using the traditional knowledge of farmers as well as plants or resources found in developing countries without remuneration.8

Right to Equity in Benefit Sharing Process
Throughout the world, farmers and their communities have developed a vast portfolio of genetic diversity within crops and other plant species, which form the raw material for all agricultural activities. Modern plant breeding, in fact, builds on plant germplasm resources that have been traditionally developed and donated by farmers.9 However, there are many cases revealing that a large number of patents have been granted on genetic resources and knowledge from developing countries without the consent of the possessors of the resources and knowledge. There has been extensive documentation of IPR protection being sought over resources ‘as they are’ without further improvement. These include a US patent on quinoa, which was granted to researchers of the Colorado State University, a US patent on ayahuasca, a sacred and medicinal plant of the Amazon region, and other patents on products based on plant materials and knowledge developed and used by local and indigenous communities, such as those relating to the neem, kava, barbasco, endod and turmeric.10

Right to Participate in Decision Making Process
Farmers are unorganised group in the developing countries. They are, therefore, not consulted in the decision making process on matters related to their resources. It is often the organised group, i.e., breeders and commercial seed companies, which decide their position whether that is in the market or during negotiations at the multilateral level. Such an exclusion from the decision making process, which determines their fate, obviously is a violation of their right.

These evidences reveal that farmers’ rights are not a priority under the IPR regime. If conservation and development are going to be mutually reinforcing, farming communities should not merely enjoy their right to receive economic benefit for the role they have played

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**Box: 1**

CBD AND ITPGRFA: SEEKING TO SECURE FARMERS’ RIGHTS

Article 8 (j) of the CBD binds each contracting party to respect, preserve and maintain traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity. The Article also calls contracting party to promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices. The CBD mentions that access to the biological resources of a country by another shall be with prior informed consent and under mutually agreed terms.

Similarly, Article 9.2 of the ITPGRFA states that the each contracting party, in accordance with their needs and priorities, should, as appropriate, and subject to its national legislation, take measures to protect and promote farmers’ rights, including: protection of traditional knowledge relevant to plant genetic resources for food and agriculture; the right to equitably participate in sharing benefits arising from the utilisation of plant genetic resources for food and agriculture; and the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

Article 9.3 of the treaty also states that nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate.

*Adapted from: www.fao.org*
in the conservation and development of genetic resources, their rights to seed, traditional knowledge and take part in the decision making process should also be protected and promoted. Notably, there are two important treaties – the Convention on Biological Diversity (CBD) and International Treaty on Plant Genetic Resources (ITPGRFA) – that seek to secure the rights of farmers to plant genetic resources and recognise their role in conserving biological diversity (See Box 1). Developing countries have observed these treaties as important guidelines to protect farmers' rights. They have been raising concerns at different fora that the harmonisation of TRIPS with them, especially the CBD, is essential to protect farmers' rights.

OPTION TO PROTECT FARMERS' RIGHTS
As members of the WTO, developing countries are required to provide protection to plant varieties either through patent, an effective sui generis system or a combination of both. Given the negative consequences of patents, developing countries have chosen to adopt the sui generis system. However, the devil lies in the details. TRIPS requires members to adopt an 'effective' sui generis system but does not mention what effective means. Ultimately, the ambiguity of this word has strengthened the position of the developed countries to interpret what an effective sui generis system is. They refer International Union for the Protection of New Varieties of Plants (UPOV) as an effective model for PVP laws. However, UPOV has been subject to severe criticism for many reasons (See Box 2).

MODELS TO PROTECT FARMERS' RIGHTS
While many developing countries including China and South Korea have already enacted PVP laws in tune with UPOV, many others including Bangladesh, Indonesia, Pakistan, Philippines and Sri Lanka are consulting UPOV to devise their PVP laws. Amidst pressures from the developed countries to join UPOV, the developing countries, which are consulting UPOV, should take the stance taken by Nepal. Nepal managed to fend off the US pressure to join UPOV at the time of its accession negotiations at the WTO. At the same time, these countries should also take note of the fact that in response to UPOV and capitalising on the TRIPS flexibility to adopt sui generis legislation, India and Namibia has devised farmer-friendly PVP laws.

While India has devised its law based on Convention of Farmers and Breeders (CoFaB), which is developed by Gene Campaign, a Delhi based non-governmental organisation, Namibia has based its law on the African Model Law for the Protection of the Rights of Local Communities, which is developed by Organisation for African and Unity (OAU). These two models could be of immense significance to other developing countries. However, not all countries have same nature of farming systems and plant varieties. Therefore, other developing countries can use these models as a reference so

Box 2

**TEN REASONS NOT TO JOIN UPOV**

1. **UPOV denies farmers' rights both in the narrow and the wide sense.** In the narrow sense, the right to freely save seed from the harvest is curtailed. In the wide sense, UPOV does not recognise or support communities' inherent rights to biodiversity and their space to innovate.

2. **Northern companies will take over national breeding systems in the South.** There is no code of technology transfer implicit in UPOV, other than the net effect that multinational companies (MNCs) will be able to market varieties in the South under legal conditions adjusted to their global ambitions. National breeders and local seed companies will be bought out by the foreign companies.

3. **Northern companies will get ownership of the South's biodiversity with no obligation to share the benefits.** Contrary to the CBD, UPOV does not provide for any sharing of benefits from the North's exploitation of the South's biodiversity. Farmers of the South end up paying royalties for their own germplasm, which has been tampered with and repackaged in the North.

4. **UPOV criteria for protection will exacerbate erosion of biodiversity.** This is extremely dangerous, especially in poor countries. Chemicals or genetic engineering will be needed to compensate for crop vulnerability, which farmers cannot afford. Uniformity leads to harvest loss and further food insecurity.

5. **Privatisation of genetic resources affects research negatively.** Impact studies in the US and elsewhere show a clear correlation between PVP and reduced information and germplasm flows. Also, UPOV rules on 'essential derivation' will act as a disincentive to researchers since MNCs can bully researchers to submit to accusations of plagiarism.

6. **Moves to keep biodiversity under negotiated access systems – for example at CBD and FAO – will be undermined.** PVP laws give private ownership over resources that fall under national sovereignty and, more truthfully, community sovereignty.

7. **Joining UPOV means becoming party to a system that increasingly supports the rights of industrial breeders over those of farmers and communities.** Every revision of UPOV broadens the rights of breeders and weakens the rights of farmers and the public interest.

8. **UPOV is not in harmony with TRIPS, and conflicts with the CBD.** UPOV extends mutual privileges within a membership of 52 countries. TRIPS requires the similar privileges to be mutually shared among 147 member countries of the WTO. Someone has to revise their rules. Further the CBD, with a full 189 member states, requires benefit sharing that UPOV does not provide for.

9. **TRIPS is being reviewed.** This means that the obligations concerning patent and PVP can be removed. The opportunity to remove such obligations is legitimately on the table.

10. **The lion's share of the benefits will flow to the North.** UPOV is designed to facilitate monopolies in corporate plant breeding. Most of the breeding is for international markets. Joining UPOV will ensure that the South's integration into Northern-controlled markets increases, but not for the benefit of those who are hungry today.

*Adapted from: www.grain.org*
that they could prepare PVP laws that suit their socio-economic, cultural and geographic needs.

**Convention of Farmers and Breeders**

CoFaB seeks to secure the interests of developing countries in agriculture and at the same time protects their farmers' rights.

**Coverage of Varieties**

CoFaB is designed to be applied to all botanical genera and species and these should all be protected within 10 years of the adoption of the Convention.

**Farmers’ rights**

Each contracting state will recognise the rights of farmers by making arrangements to collect farmers' rights fee from the breeders of new varieties. The farmers' rights fee will be levied for the privilege of using landraces or traditional varieties either directly or through the use of other varieties that have used landraces and traditional varieties, in their breeding programme. The rights granted to the farming communities under Farmers' Rights entitle them to charge a fee from breeders every time a landrace or traditional variety is used for the purpose of breeding or improving a new variety.

Revenue collected from farmers' rights fees will flow into a National Gene Fund (NGF), the use of which will be decided by a multi-stakeholder body set up for the purpose. The convention states that farmers' rights will be granted to farming communities and where applicable, to individual farmers.

The convention has provided some special privileges to farmers in some cases compared to breeders. For example:

- Rights granted to the farmers will be for unlimited period whereas in the case of plant breeders, it is for a limited period. The period, however, may not be less than 15 years. For plants, such as vines, fruit trees and their rootstocks, forest trees and ornamental trees, the minimum period shall be 18 years.
- The free exercise of the right accorded to the farmers may not be restricted whereas in the case of plant breeders, such an exercise may be restricted for reasons of public interest.

**Breeders’ rights**

Each member state will recognise the right of the breeder of a new variety by granting a special title called the Plant Breeders’ Right (PBR). The PBR granted to the breeder of a new plant variety is that prior authorisation shall be required for the production, for purposes of commercial and branded marketing of the reproductive or vegetative propagating material, as such, of the new variety, and for the offering for sale or marketing of such material. Authorisation by the breeder shall not be required either for the utilisation of the new variety as an initial source of variation for creating other new varieties or for the marketing of such varieties. Such authorisation shall be required, however, when the repeated use of new variety is necessary for commercial production of another variety. At the time of application for the PBRs, the breeder of the new variety must declare the name and source of all varieties used in the breeding of the new variety. Where a landrace or farmer variety has been used, this must be specifically mentioned.

The convention requires that a variety for which rights are claimed must have been entered in field trials for at least two cropping seasons and evaluated by an independent institutional arrangement. The breeder at the time of getting rights will have to provide the genealogy of the variety along with DNA fingerprinting and other molecular, morphological and physiological characteristics.

Mentioning about nullity and forfeiture of breeders’ rights, the CoFaB states that a breeder shall forfeit his/her right when he/she is no longer in a position to provide the competent authority with reproductive or propagating material capable of producing the new variety with its morphological and physiological characteristics as defined when the right was granted. The breeder will also forfeit his/her right if the "Productivity Potential" as claimed in the application is no longer valid and he/she is not able to meet the demand of farmers. The convention also provisions for making breeder's right null and void if he/she fails to disclose information about the new variety or does not provide the competent authority with the reproductive or propagating material.

**African Model Law for the Protection of the Rights of Local Communities**

The African Model Legislation (herein after the Law) is designed for the protection of the rights of local communities, farmers and breeders, and for the regulation of access to biological resources.

**Coverage of Varieties**

The Law covers biological resources that include genetic resources, organisms or parts thereof, populations, or any other component of ecosystems, including ecosystems themselves, with actual or potential use or value for humanity.

**Farmers’ Rights**

Recognising farmers’ rights the Law states that farmers’ rights stem from the enormous contributions that local farming communities, especially their women members, of all regions of the world, particularly those in the centres of origin or diversity of crops and other
agro-biodiversity, have made in the conservation, development and sustainable use of plant and animal genetic resources that constitute the basis of breeding for food and agriculture production.

It mentions that farmers’ varieties and breeds are recognised and shall be protected under the rules of practice as found in, and recognised by, the customary practices and laws of the concerned local farming communities, whether such laws are written or not. A variety with specific attributes identified by a community shall be granted intellectual protection through a variety certificate, which does not have to meet the criteria of distinction, uniformity and stability. This variety certificate entitles the community to have the exclusive rights to multiply, cultivate, use or sell the variety, or to license its use without prejudice to the farmers’ rights set out in the Law.

The Law specifically mentions that farmers’ rights shall, with due regard for gender equity, include the right to:

- the protection of their traditional knowledge relevant to plant and animal genetic resources;
- obtain an equitable share of benefits arising from the use of plant and animal genetic resources;
- participate in making decisions, including at the national level, on matters related to the conservation and sustainable use of plant and animal genetic resources;
- save, use, exchange and sell farm-saved seed/propagating material of farmers’ varieties;
- use a new breeders’ variety protected under the law to develop farmers’ varieties, including material obtained from genebanks or plant genetic resource centres; and
- collectively save, use, multiply and process farm-saved seed of protected varieties.

The Law, however, has restricted farmers to sell farm-saved seed/propagating material of a breeders’ protected variety in the seed industry on a commercial scale.

**Breeders’ Rights**

The Law has recognised breeders’ rights stating that their rights stem from the efforts and investments made by persons/institutions for the development of new varieties of plants. Subject to this Law, PBRs in respect of a plant variety shall exist for a period of 20 years in the case of annual crops and 25 years in the case of trees, vines and other perennials commencing on the day on which the successful application for a PBRs in respect of the plant variety was accepted.

In respect of a new variety, PBRs are the exclusive right to sell, including the right to license other persons to sell plants or propagating material of that variety; and the exclusive right to produce, including the right to license other persons to produce, propagating material of that variety for sale.

At the same time, giving importance to farmers’ rights, the Law has stipulated that PBRs in respect of a plant variety is subject to the conditions provided in Part V, i.e., the farmers’ rights part of this Law.

The Law mentions that any person or farming community may use plants or propagating material of the variety as an initial source of variation for the purpose of developing another new plant variety except where the person makes repeated use of plants or propagating material of the first mentioned variety for the commercial production of another variety. The Law states that any person or farming community may also sprout the protected variety as food for home consumption or for the market; use the protected variety in further breeding, research or teaching; and obtain, with the conditions of utilisation, such a protected variety from genebanks or plant genetic resources centres.

**CAPITALISING ON TRIPS REVIEW PROCESS**

One window of opportunity for developing countries is that Article 27.3 (b) is being reviewed. The review began in 1999 and is still underway at the TRIPS Council. The Doha Ministerial of the WTO held in November 2001, having focused on the problems posed by Article 27.3 (b), has clearly directed the TRIPS Council to examine, among others, the relationship between TRIPS and the CBD and the protection of traditional knowledge and folklore. In its review the Council is to be guided by "the objectives and principles set out in Articles 7 and 8 of the TRIPS Agreement" and "to take fully into account the development dimension".

Therefore, for developing countries, the TRIPS review process is an important avenue to call on the WTO to reconsider the controversial provisions of patents and PVP. Already, many developing countries have made numerous proposals to amend TRIPS to prohibit pat-

**DIVERGENCE OF VIEWS IN TRIPS COUNCIL**

On 16 June 2004, trade delegates convened to continue their discussions on Article 27.3(b) (patentability of life forms), genetic resources, traditional knowledge and folklore in the TRIPS Council. Despite continued efforts by developing countries to keep these issues on the table, the meeting made no real advances in the debate. The biodiversity-related discussions focused on the checklist of issues for further discussion that had been put forward by Bolivia, Brazil, Cuba, Ecuador, India, Peru, Thailand, Venezuela and Pakistan in March. The submission suggested a structure for continuing the negotiating process, outlining questions in three clusters on disclosure of origin, evidence of prior informed consent, and benefit sharing related to genetic material and traditional knowledge. The US and Japan continued to oppose such a process, arguing that the checklist was too detailed.

Source: www.ictsd.org
Patents and PVP have a great potential to affect farmers’ right to seed, traditional knowledge, benefit sharing and participate in the decision making process. Developing countries regard the sui generis system as an effective legal basis to protect farmers’ rights. However, developed countries have left no stone unturned to pressurise developing countries to adopt their own system of PVP, i.e., UPOV. But UPOV has been subject to criticism for several reasons not least because it does not suit the farming systems of developing countries. Unfortunately, many developing countries have already enacted their PVP laws in tune with UPOV and many are consulting it in the process of preparing their laws. Interestingly, India and Namibia have taken a different move. While India has enacted its PVP law based on CoFaB, Namibia has based its law on African Model Law. Besides these models, there are two international instruments that explicitly underscore the need to protect farmers’ rights – the CBD and ITPGRFA.

Therefore, in their effort to devise a sui generis system of PVP, developing countries should take CoFaB, African Model Law and two international instruments – the CBD and ITPGRFA – as a reference so that they could protect and promote their farmers’ rights. In this context, following recommendations are worth taking note of:

- Resist the pressure of developed countries to join UPOV;
- Capitalise on the TRIPS flexibility, i.e., adopt the sui generis PVP law to ensure that farmers’ rights are given a due space in such a legislation;
- Take CoFaB and African Model Law as a reference for identifying the measures to protect and promote farmers’ rights;
- Analyse how the CBD and ITPGRFA can provide necessary guidelines in the process of preparing PVP laws at the national level; and
- Capitalise on the TRIPS review process as an avenue to ensure farmers’ rights.

ENDNOTES
5 See www.grain.org.
11 Adapted from www.mssrf.org.
12 UPOV was established by the International Convention for New Varieties of Plants, which was signed in Paris in 1961. The Convention, which became effective in 1968, was revised in 1972, 1978 and 1991.

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